AMENDMENTS TO THE CLAIMS

Without prejudice, please amend the claims as reflected in the following listing of claims, which will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. **(Currently Amended)** A boronic acid substituted polyaniline polymer capable of converting between a self-doped form and a non-self doped form by a reversible chemical reaction wherein the reversible chemical reaction comprises complexation between boronic acid of the polyaniline polymer with a saccharide in the presence of fluoride.

2. **(Original)** The polymer according to claim 1 having a hardness of at least 0.03 GPa.

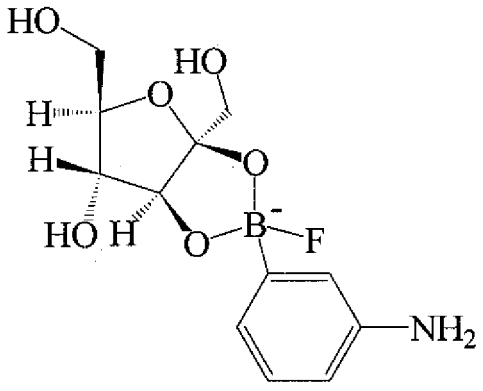
3. **(Original)** The polymer according to claim 1 having a molecular weight of at least 10,000.

4. **(Original)** The polymer according to claim 1 having a molecular weight of at least 100,000.

5. **(Canceled)**

6. **(Original)** A self-doped polyaniline capable of converting between:

a water-soluble self-doped form comprising repeating units as shown below



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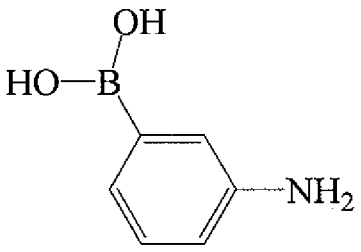
; and

a water-insoluble non-self-doped form comprising repeating units as shown below:



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wherein the water-soluble form is converted to the water-insoluble form by reducing fluoride concentration of the polymer.

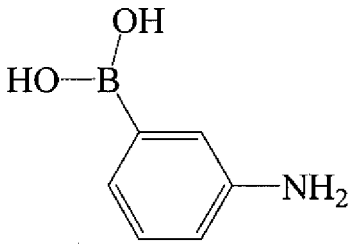
7. **(Original)** The polyaniline according to claim 6 having a hardness of at least 0.03 GPa.

8. **(Original)** The polyaniline according to claim 6 having a molecular weight of at least 10,000.

9. **(Original)** The polyaniline according to claim 6 having a molecular weight of at least 100,000.

10. **(Withdrawn)** A method of making a self-doped polyaniline comprising:

(a) providing a monomer:



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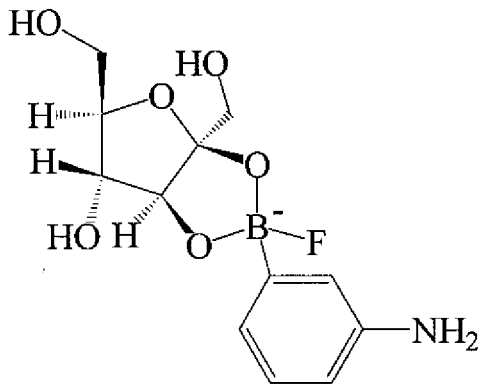
, D-fructose and fluoride;

(b) incubating said monomer, the D-fructose and the fluoride under conditions suitable for polymerization, thereby producing a first polymer:



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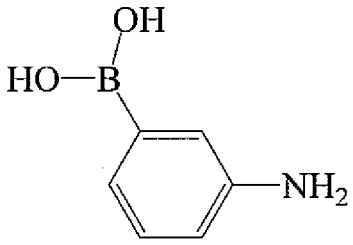
(c) precipitating said polymer by reducing the fluoride concentration, thereby producing a second polymer:



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11. **(Withdrawn)** The method according to claim 10 including:

(d) heating the second polymer, thereby forming a cross-linked polymer.

12. **(Withdrawn)** The method according to claim 10 having a hardness of at least 0.03 GPa.

13. **(Withdrawn)** The method according to claim 10 having a molecular weight of at least 10,000.

14. **(Withdrawn)** The method according to claim 10 having a molecular weight of at least 100,000.

15. **(New)** The polymer according to claim 1 wherein the saccharide is D-fructose.

16. **(New)** The polymer according to claim 1 having a hardness of at least 0.03 to 0.5 GPa.

17. **(New)** The polymer according to claim 1 having a hardness of at least 0.04 to 0.5 GPa.

18. **(New)** The polymer according to claim 1 having a hardness of at least 0.05 to 0.5 GPa.

19. **(New)** The polymer according to claim 1 having a hardness of at least 0.06 to 0.5 GPa.

20. **(New)** The polymer according to claim 1 having a molecular weight of at least 100,000 to 2,000,000.

21. **(New)** The polyaniline according to claim 6 having a hardness of at least 0.03 to 0.5 GPa.

22. **(New)** The polyaniline according to claim 6 having a hardness of at least 0.04 to 0.5 GPa.

23. **(New)** The polyaniline according to claim 6 having a hardness of at least 0.05 to 0.5 GPa.

24. **(New)** The polyaniline according to claim 6 having a hardness of at least 0.06 to 0.5 GPa.

25. **(New)** The polyaniline according to claim 6 having a molecular weight of at least 10,000 to 2,000,000.

26. **(New)** The polyaniline according to claim 6 having a molecular weight of at least 100,000 to 2,000,000.